

**Abstract of the Disclosure**

Provided herein are high-throughput assays for identifying quadruplex interacting molecules. These assays comprise the steps of contacting a test molecule and a signal molecule with a quadruplex nucleic acid in a system, and detecting the signal produced by the signal molecule. Also provided are high-throughput assays for identifying quadruplex forming nucleic acids. These assays comprise the steps of contacting a signal molecule with a test nucleic acid in a system, and detecting a fluorescent signal produced by the signal molecule.